

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 2, 3, 9, 10, 12, and 22 have been amended, claims 25 and 26 have been added, and claims 13-17 have been canceled, without prejudice or disclaimer.

Claims 1-12 and 18-26 are pending and under consideration.

Claim 23 has not been rejected in the outstanding Office Action. Accordingly, applicants respectfully submit that the outstanding Office Action is improper for failing to address this claim or claim 23 is in allowable condition.

OBJECTION TO CLAIM 2

Claim 2 stands objected for the lack of a definition of "simple content" in claims 1 or 2.

To address this issue, applicants have amended claim 2 to claim a "setting a page determined to have simple contents and forms to be multiple printed." The specification clearly sets forth support for distinguishing simple contents and complicated contents and forms, and techniques for discerning the same. See paragraphs [0043]-[0045] as at least one example.

Accordingly, it is respectfully requested that this objection be withdrawn.

REJECTIONS UNDER 35 USC 102

Claims 1, 2, 8, 10, 11, 12, 18, 19, 20, 22, and 24 stand rejected under 35 USC 102 as being anticipated by Gabbe et al., U.S. Patent No. 4,928,252. This rejection is respectfully traversed.

Claims 1, 8, 10, 12, 18 and 22 are independent claims.

By way of review and as only an example, independent claim 1 sets forth:

"[a] printing method using a multiple pages per side (Nup) function, by which a document comprising a plurality of pages is printed using the Nup function of printing multiple pages on a sheet of paper, the method comprising:

setting pages to be multiple printed out of the plurality of pages;

determining whether a page to be printed is one of the pages set to be multiple

printed;

processing data of the page to be printed as data to be multiple printed in response to determining that the page to be printed is one of the pages set to be multiple printed;

processing data of the page to be printed as data to be commercially printed in response to determining that the page to be printed is not one of the pages set to be multiple printed; and

printing the plurality of pages according to the processed data."

Here, independent claim 1 at least requires a determining operation to determine whether a particular page is one of plural set pages set to be multiple printed. If the page is determined to one of the plural set pages to be multiple printed, then a processing of the page is done for the multiple printing. If the page is determined to not be one of the plural set pages to be multiple printed, then a processing of the page is done to print the page for commercial printing.

Thereafter, the plurality of pages are printed based upon their respective processed data. Here, it is noted that the plural pages that are set for multiple printing are a subset of the plurality of pages. Thus the printing of the plurality of pages can result in all pages printed through multiple page processing, all the pages being printed through commercial printing, or some of the pages being processed and printed with multiple page processing and some of the pages being processed and printed with commercial printing.

Regardless, in claim 1, there must be a determination as to whether a page to be printed is one of the pages set to be multiple printed, and based upon that determination the page is processed either according to multiple page process or commercial printing processing.

Independent claim 8 sets forth similar features of claim 1, with differing scope and breadth.

In addition, similarly to claims 1 and 8, independent claim 22 sets forth:

"processing data of a first page, of the plurality of pages, to be printed as data to be multiple printed in response to determining that the page to be printed is set to be multiple printed;

processing data of a second page, of the plurality of pages, to be printed as data to be commercially printed in response to determining that the page to be printed is not

set to be multiple printed; and

printing the plurality of pages based respective processed page data."

Similar to above, the printing operation is performed based upon the processed data, which is selectively either processed to be printed as data to be multiple printed or processed to be printed as data to be commercially printed.

Conversely, the Office Action relies upon a user, in the system of Gabbe et al., to chose either a "default mode" or to overrule the default mode and set the number of pages that are to be printed on one page.

This user designation of the printing operation cannot be selective for the printing of pages within a printing operation, e.g., of a plurality of pages. Rather, all pages, of a plurality of pages, must be printed with the conventional standard (commercially printed) or with the multiple printed operation.

The user setting of a default mode or the setting of a number pages to be printed together for all pages in a printing operation of Gabbe et al. cannot be considered the same as the claimed separate processing of data for multiple printing and commercial printing and the resultant printing of the corresponding plurality of pages.

Similarly, Gabbe et al. cannot be considered as disclosing or suggesting the claimed setting of pages to be multiple printed "out of the plurality of pages," and the subsequent processing determining whether a page to be printed is one of the pages set to be multiple printed.

In Gabbe et al., if a default mode is set, there is no need to determine whether pages are set for the multiple printing. Likewise, if the default mode is turned off, there similarly would not be a need to determine whether the pages are set for the multiple mode. All pages would be set for either mode.

In the same manner, Gabbe et al. accordingly fails to perform both of the processing operations within the same printing operation, and also fails to perform both of the processing operations in response to the determining operation.

Similar to above, in Gabbe et al., as the modes are set by the user, the separate processing operations would not be needed for the same printing operation of the plurality of pages. Rather, in Gabbe et al., only one processing operation would be done as all pages are printed in the same manner.

Briefly, regarding dependent claim 2, the Office Action indicates that it is inherent

that all pages have simple content, therefore all pages printed in Gabbe et al. has simple content.

However, it is respectfully submitted that the present application particularly teaches that this is not an inherent aspect of printing, i.e., all pages are not by definition simple content pages. Some pages will have complicated content and forms and some pages will have simple content and forms. The present application permits these different characteristics to be considered in some embodiments.

Accordingly, it is respectfully submitted that the inherency conclusion of claim 2 is incorrect.

Regarding claims 10-12 and 24, it is respectfully submitted that Gabbe et al. fails to disclose "generating a number indicating an order of the multiple pages to be printed on the sheet of paper; and multiple-printing the plurality of pages together on a same printed page with corresponding page numbers of each page according to the printing environment, the processed data, and the generated number of multiple pages," as recited in claim 10.

Similarly, claim 24 sets forth "generating a page number for each of the multiple pages printed on the sheet of paper; and printing the page numbers along with the multiple pages on the sheet of paper."

The referenced section of Gabbe et al. of FIGS. 7A-7P only sets forth that the order of the multiple pages can be differently set, not that the corresponding pages numbers of each multiple-printed page and its corresponding page number are printed on the same printed page.

Regarding claims 18-21, the Office Action relies upon col. 6, lines 45-54, of Gabbe et al. to disclose a selective control of layout and size of pages printed on a sheet based upon a user desired number of pages per sheet.

Thereafter, the Office Action further indicates that it would be inherent that Gabbe et al. "can determine whether or not the user had selected from a predetermined N or arbitrarily selected N since it is clear that the system was designed not to be limited by a few predetermined combinations of pages per sheet."

However, for a reference to be a sufficient disclosure it must be enabling of the relied upon feature.

Here, Gabbe et al. first recites: "The present invention is not limited to a few predefined combinations of pages per sheet and/or respective sizes of pages and sheets."

However, in explaining that sentence, Gabbe et al. immediately thereafter recites: "That is, the present invention only requires that the user specify the number of pages per sheet, after which, the method and apparatus will specify a page layout maximizing the usable area on the sheet and the size of the pages printed onto the sheet, i.e., maximize the scale factor used to print the page from the data file onto the sheet. Preferably, the present invention does not alter the aspect ratio of the pages."

Again, Gabbe et al. particularly recites that a user is "required" to specify the number of pages per sheet.

Thus, there is no suggestion or disclosure that Gabbe et al. was meant to disclose or suggest an arbitrary number of pages per sheet.

Further, based upon the following sentences, the first sentence in col. 6, lines 45-47, of Gabbe et al. cannot be considered enabling of the teaching the Office Action indicates. The Office Action interpreted inherency of this portion of Gabbe et al. is incorrect.

It is respectfully submitted that Gabbe et al. fails to both disclose or suggest the claimed arbitrary N.

Withdrawal of this rejection of claims 1, 2, 8, 10, 11, 12, 18, 19, 20, 22, and 24 is respectfully requested.

Claims 3, 4, 5, 6, 7, and 9 stand rejected under 35 USC 102 as being anticipated by Kohri et al., U.S. Patent No. 5,959,744. This rejection is respectfully traversed.

By way of review, independent claim 3 sets forth:

"A printing method using a multiple pages per side (Nup) function, by which a document comprising a plurality of pages is printed using the Nup function of printing multiple pages on a sheet of paper, the method comprising:

calculating a data amount of a page to be printed;

determining whether the calculated data amount exceeds a predetermined reference data amount;

processing data of the page to be printed as data to be multiple printed, in response to determining that the calculated data amount does not exceed the predetermined reference data amount, such that multiple pages of the document are printed on a same printed page;

processing data of the page to be printed as data to be commercially printed, and printing the plurality of pages according to the processed data."

Here, the Nup function must be for printing a plurality of pages of a document on a sheet of paper. Thus, the document must have a plurality of pages, and the multiple printing function must place a plurality of those pages on the same sheet.

In addition, the claimed processing of the data of the page is performed "such that multiple pages of the document are printed on a same printed page."

Conversely, Kohri et al. is directed toward collecting multiple single page records, each representing a document of less than a page. See FIG. 7 of Kohri et al.

These separate pages are then combined on a same printed page based upon the length and width of each single page separate document, i.e., as shown in FIGS. 8 and 9 of Kohri et al., if the length of three separate single page documents is not greater than the length of the paper used to print the combined documents, then all three separate single page documents are combined and printed. However, as shown in FIG. 9, if the length of the single pages documents as combined is greater than the length of the paper used to print the combined documents, then only the first two documents are combined.

Kohri et al. is directed toward determining whether multiple documents of different length can be more easily printed out with less paper by printing multiple documents on a same page. Again, in Kohri et al., the separate pages are separate documents.

Accordingly, Kohri et al. fails to disclose or suggest the claimed printing of a plurality of pages of a document on a same printed page.

Withdrawal of this rejection of claims 3, 4, 5, 6, 7, and 9 is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

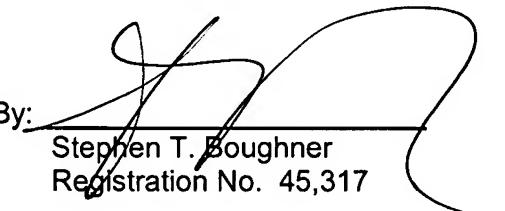
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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